The invention claimed is:

1. A sensor including a plurality of layers, comprising:
a first mask layer;
a second mask layer;
a third mask layer disposed between said first and second mask layers and defining an aperture; and
a first conductive layer disposed between the first mask layer and the third mask layer;
a second conductive layer disposed between the second mask layer and the third mask layer; and
a separator layer extending across the aperture in the third mask layer, said separator layer being configured to separate the first and second conductive layers when no pressure is applied to the sensor and to allow electrical contact between said first and second conductive layers during a mechanical interaction with said sensor,
wherein each mask layer is formed from an electrically insulating material and has at least one side attached to another of said mask layers by adhesive such that the edges of said first conductive layer are encapsulated between said first mask layer and said third mask layer and the edges of said second conductive layer are encapsulated between said second mask layer and said third mask layer.

2. The sensor according to claim 1, in which said third mask layer has smaller border dimensions than said first and second mask layers, and said first mask layer is attached to said second mask layer by adhesive.

3. The sensor according to claim 1, in which said sensor further comprises first conductive tracking configured to allow a voltage gradient to be established across said first conductive layer in a first direction, wherein a portion of said first conductive tracking is disposed directly on said first mask layer and a portion is positioned directly on the first conductive layer.

4. The sensor according to claim 3, wherein said first mask layer defines a first tab and said first conductive tracking runs from said first tab to said first conductive layer.

5. The sensor according to claim 3, wherein in which said sensor further comprises second conductive tracking configured to allow a voltage gradient to be established across said second conductive layer in a second direction that is perpendicular to said first direction, wherein a portion of second conductive tracking is disposed directly on said second mask layer and a portion is positioned directly on the second conductive layer.

6. The sensor according to claim 1, wherein said first and second conductive textile layers have electrically conductive fibres incorporated therein.

7. The sensor according to claim 1, wherein said first and second mask layers are continuous layers.

8. The sensor according to claim 1, wherein said mask layers are formed from a plastics material.

9. The sensor according to claim 1, wherein said mask layers are formed from a polyurethane material.

10. The sensor according to claim 1, wherein said adhesive is a thermoplastic adhesive.

11. The sensor according to claim 1, wherein said separator layer is formed from a mesh material.

12. The sensor according to claim 1, wherein the sensor is configured to generate signals in response to mechanical interactions, the signals representing X-axis and Y-axis coordinate data of mechanical interactions within the sensing area of the sensor.

13. A method of assembling a plurality of layers to form a sensor, comprising the steps of:
obtaining a first mask layer and a second mask layer, each formed from an electrically insulating material;
obtaining a third mask layer defining an aperture and formed from an electrically insulating material;
disposing said third mask layer between said first mask layer and said second mask layer;
locating a first conductive layer between the first mask layer and the third mask layer;
locating a second conductive layer between the third mask layer and the second mask layer, and disposing a separator layer between said first and second conductive layers such that it extends across the aperture in the third mask layer, said separator layer configured to separate the first and second conductive layers when no pressure is applied to the sensor and to allow electrical contact between said first and second conductive layers during a mechanical interaction with said sensor, wherein said method further comprises the step of:
attaching at least one side of each mask layer to another of said mask layers by adhesive such that the edges of said first conductive layer are encapsulated between said first mask layer and said third mask layer and the edges of said second conductive layer are encapsulated between said second mask layer and said third mask layer.

14. The sensor according to claim 5, wherein said second mask layer defines a second tab and said second conductive tracking runs from said second tab to said second conductive layer.

15. The sensor according to claim 5, wherein said first conductive tracking and said second conductive tracking are metallised fabric.

16. The sensor according to claim 6, wherein said first and second conductive layers have a woven or knitted construction.

17. The sensor according to claim 1, wherein the footprint of said separator layer is extended beyond that of said first conductive layer and said second conductive layer.

18. The sensor according to claim 10, wherein said thermoplastic adhesive has a melting point within the range of fifty degrees Celsius (50° C.) to one hundred and fifty degrees Celsius (150° C.).

19. The sensor according to claim 1, wherein at least one mask layer has adhesive on both sides.

20. The method according to claim 13, wherein said first and second conductive layers have electrically conductive fibres incorporated therein.

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